



Reverse tenancy in Romania: Actors' rationales and equity outcomes

Laurence Amblard, J.P. Colin

► To cite this version:

Laurence Amblard, J.P. Colin. Reverse tenancy in Romania: Actors' rationales and equity outcomes. Land Use Policy, 2009, 26 (3), p. 828 - p. 836. 10.1016/j.landusepol.2008.10.008 . hal-00454533

HAL Id: hal-00454533

<https://hal.science/hal-00454533>

Submitted on 8 Feb 2010

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Reverse Tenancy in Romania: Actors' rationales and equity outcomes

Amblard, L. (Cemagref, UMR Métafort) and Colin, J.-Ph. (IRD, UMR Moisa)

Abstract

Following the implementation of the land reform in the 1990's, land rentals have developed in Romania, mainly in a reverse tenancy configuration. The paper provides an analysis of contractual practices in this configuration, based on empirical data collected through intensive field work in Transylvania. The paper depicts the reverse tenancy configuration and the conditions of its emergence in Romania, following the implementation of transition reforms in the agricultural sector. Characterizing the negotiation and enforcement of contracts in this configuration shows that in a situation where no effective enforcement mechanism is available, the market structure is such that tenants can choose "very incomplete" contracts or default on their contractual obligations. The analysis of the landowners' perspective, taking into account their perception of the contractual relationship contributes to explain why contractual practices persist in this context. The article concludes with a discussion, from a policy perspective, of the equity-enhancing role of the land lease market in such this reverse tenancy configuration.

Keywords: Land rental market; Reverse tenancy; Agrarian contracts; Economic transition; Romania

1. Introduction

Land transactions through sales and rental markets can play an important role in the development process, insofar as they allow for a reallocation of resources when there are differences in individuals' skills and endowments of factors of production. However, it has been shown that the scope for the land sales market to bring about efficiency and equity is reduced in contexts where credit and insurance markets are imperfect (Deininger and Feder, 2001; Deininger, 2003b). As such, recently published studies in the field of development economics have stressed the advantages of the land rental market over the land sales market in developing and transition countries (Deininger, 2003a). It would especially allow a better access to land for the poor (De Janvry et al., 2001). One issue emphasized in this literature is that the choice of a rental contract and particularly the choice of share contracts may directly compensate for market failures in credit, insurance, managerial skills, etc. (Sadoulet et al., 2001; Deininger, 2003b).

This paper deals with the contractual practices in Transylvania, Romania. The Romanian agriculture has undergone major changes since the beginning of the transition from a planned to a market economy. The land reform aiming at the redefinition of private land property rights was launched in 1991. Land sales and land rentals were respectively legalized in 1994 and 1998. There is few official data about the current number of land transactions in Romania. While the land sales market remains thin, the land rental market appears to be developing significantly: the share of the agricultural area cultivated under land tenancy through formal contracts increased from 4.3% in 1993 to 8% in 1996 and 11% in 2000 (Dumitru, 2002)¹. These figures underestimate the magnitude of land leasing, as most contracts remain informal.

The development of the land rental market has been little studied in the empirical literature dealing with Central and Eastern Europe transition countries. This literature has mostly focused on the issue of decollectivization, that is the break-up of state and collective units into individual farms (Brooks and Meurs, 1994; Deininger, 1995; Sarris and Gavrilescu, 1997; Mathijs and Swinnen, 1998; Macours and Swinnen, 1999; Csaki, 2000; Mathijs and Swinnen, 2001; Rizov et al., 2001; Sabates-Wheeler, 2001, 2002). Swinnen and Vranken (2007) offer an overview of the emergence and development of tenancy markets in Central and Eastern Europe transition countries. Two in-depth works, based on the Hungarian case, show how the land rental market operation allows for a consolidation of the individual farm structure (Burger, 2001) as well as a reallocation of land to households with better farm management abilities (Vranken and Swinnen, 2006). However, as far as we know, the issue of contractual choice has not been explored in these contexts yet.

¹ According to the last agricultural census conducted in 2002, 7.4% of the agricultural area was used by farms accessing land exclusively through rental contracts and 11.7% was used by farms combining owner cultivation and tenancy. Unfortunately, these figures do not provide for any precise indication about the share of the agricultural area cultivated through tenancy arrangements.

Dominant approaches in economics to agrarian contracts usually conceptualize the contract as a relationship between a large landowner and landless tenants. They assume a market structure such that the landowner has the power to stipulate the terms of the contract, subject only to the condition that the tenant gets his reservation utility. In the current Romanian context, we do not observe such a contractual configuration; tenancy relationships have developed rather in two different configurations:

- (i) Between small landowners. This configuration is not frequent: although individual farms account for 55% of the Romanian agricultural acreage, only a few lease in land, as they lack capital to do so.
- (ii) Between small landowners and large-scale corporate farms. This “reverse tenancy” configuration is the most common in Romania. “Reverse tenancy” usually describes a situation in which large landowners lease from small landowners (Binswanger and Rosenzweig, 1984; Sharma and Dreze, 1996). Here, the imbalance between the actors does not come from land ownership (as a matter of fact, the corporate farms do not own any land, cf. *infra*) but rather from a better endowment in equipment, financial capital and technical and marketing expertise.

This paper focuses on the reverse tenancy configuration, not only because of its importance in the Romanian context, but also because it has been little documented in the literature analysing contractual choice. Our objective is to depict the reverse tenancy configuration and the conditions of its emergence, and to characterize the negotiation and enforcement of the contracts in such a situation.

Our approach combines the insights of the economic theories of agrarian contracts with a behavioural perspective: the actors' perceptions of their situation and of the options available to them must be taken into account in order to understand their practices. As stated by Herbert Simon (1986, pp. S210-S211): "If (...) we accept the proposition that both the knowledge and the computational power of the decision maker are severely limited, then we must distinguish between the real world and the actor's perception of it and reasoning about it. (...) To understand the process that the economic actor employs in making decisions calls for observing these processes directly while they are going on (...) and/or interrogating the decision maker about beliefs, expectations, and methods of calculation and reasoning."

This paper is based on qualitative research, with a detailed fieldwork conducted by [first author's name] in 2003 and 2004 in the villages of Sebeş and Răhau, located in the municipality of Sebeş (district of Alba, Transylvania)². The managers of the seven large-scale farms leasing in land in the region (Table 1) were interviewed (usually several times), as well as forty rural landowners. The learning of the Romanian language and the development of inter-personal relationships with villagers significantly improved the quality of information. Our analysis, based on in-depth localized investigation, clearly excludes any statistical representativeness at a national or a regional level. However, it provides relevant insights, beyond the cases studied, regarding the rationale of contractual practices in the reverse tenancy configuration which prevails in Romania.

The article starts with a description of the reverse tenancy configuration and the conditions of its emergence in Romania. Then, it shows that in a situation where no effective enforcement mechanism is available, the market structure is such that tenants can choose “very incomplete” contracts or default on their contractual obligations. The following section provides an analysis of the landowners' perspective, taking into account their perception of the contractual relationship. The article concludes with a discussion, from a policy perspective, of the equity-enhancing role of the land lease market in this situation.

2. The reverse tenancy configuration in Transylvania

Reverse tenancy in Transylvania and more generally in Romania corresponds to large-scale corporate farms leasing land from small landowners. In this section, we first present how the reforms launched at the beginning of the transition process have led to the pre-eminence of this contractual configuration. Then, we describe the different types of contract practiced and briefly discuss the conditions of their emergence, i.e., of institutional innovation.

2.1. The transition reforms at the roots of the reverse tenancy configuration

Until 1989, agricultural production was realized under three kinds of organizations (Amblard et al., 2002): state farms, cooperatives, and private individual farms. State farms and cooperatives were very large structures: in 1989, they were farming respectively 4835 hectares and 2127 hectares on average,

² The research is part of a broader study on the development of the tenancy market in Transylvania, with several stays in the field from 2001 to 2004, and a combination of quantitative and qualitative data collection and analysis. Quantitative data were collected from 500 rural households concerning the households' participation in the land rental market. Because of the limited number of households involved in the reverse tenancy configuration (as the database contains either households that do not take part in the land lease market, households leasing-in land and households leasing-out land as members of agricultural societies, which is a situation we do not include in the reverse tenancy configuration, see below), these data were not used in this paper.

accounting for 15.5% and 74% of the national agricultural acreage (Dumitru, 1999). Mechanization stations were providing machinery services for cooperatives, which did not own equipment (unlike state farms). State farms were farming land expropriated by the state in 1945 and 1949, while cooperatives were the result of a forced collectivization, the previous owners formally keeping legal land ownership rights. These rights were not effective, as the landowners did not have any control on land use or output. Mainly located in mountainous areas, individual farms were small (4.1 hectares on average) and were only accounting for 9.5% of the agricultural acreage.

After the collapse of the Ceausescu's regime, a land reform was implemented. First, the Land Law n°18/1991 defined the conditions of the dissolution of cooperatives and the redistribution of collectivized land – this law did not provide yet for the redistribution of state farms' land. It made provision for a restitution of the property to the former owners or their heirs (up to 10 hectares per family³), and for a distribution of land to the members of cooperatives who did not own any land before the collectivization process (0.5 ha). The implementation of this law, now almost completed, has led to the restitution of land to mainly an older and urban-based population: 57% of them are more than 60 years old and only 8.2% are less than 39 years old; 43.1% of them are urban people while 39.1% are employed or retired in rural areas. Only 17.8% of these landowners work in agriculture (Dumitru, 2002). Another consequence of the implementation of the reform is the high fragmentation of the land pattern: more than 9.4 million hectares were returned/distributed to about 4.7 million people who received on average 2 hectares. Moreover, these small areas are fragmented in several plots (4 to 5 on average), often distant from one another (Rusu, 2001).

A few months after the adoption of the Land Law, the law n° 36/1991 enabled the beneficiaries of land restitution or distribution to form production associations named agricultural societies (Societatea agricola, SA). The purpose of this law was to maintain some economies of scale in agricultural production and to limit the dispersion of the capital of the cooperatives. In the municipality of Sebeș, the landowners-members of the agricultural societies have the choice, each year, of the acreage they want to be farmed under two arrangements. The first one is a "service system" for crops (potato, corn) whose cultivation is only partly mechanized⁴. The society provides machinery services against payment while the landowners do manual tasks (the weeding and harvest) and keep the entire harvest. The second arrangement is a kind of "intra-organizational" tenancy for crops whose cultivation is entirely mechanized (wheat, barley). In that case, landowners do not participate at all in the production process and get ex-post a dividend of the

³ This ceiling has been then increased to 50 hectares by the law n°1/2000.

⁴ The fact that, in the local conditions, some crops require manual labour can be explained by constraints related to access to capital and to specific machinery.

society's results. In addition to the land owned by their members, some agricultural societies also lease land from non-member landowners under tenancy contracts (Amblard and Colin, 2006).

Whereas agricultural societies were created on the basis of the former cooperatives, commercial societies (Societatea comerciala, SC) generally emerged from the privatization of state farms and mechanization stations. These structures have been first converted into commercial societies, whose capital was entirely held by the state in shares (law n°15/1990). According to the law n°18/1991, the former owners of the land farmed by state farms became shareholders of the commercial societies, their number of shares depending on their land acreage. This status gave the landowners the right to receive dividends of the results of the society. Their property rights were thus recognized, but unlike collectivized land, the physical restitution of land was not yet considered. It is only ten years later, with the law n°1/2000, that land was returned (up to a ceiling of 50 hectares per owner). In order to ensure food security, the Romanian state delayed until 1997 the full privatization of the commercial societies (i.e., regarding the physical and financial capital). By the end of 2000, the capital of 450 commercial societies out of 739 was still mainly held by the state; by 2004 the privatization process was virtually completed (Commission of the European Communities, 2004)⁵.

The implementation of these transition reforms has led to the emergence of a dominant reverse tenancy configuration involving⁶:

- Commercial and agricultural societies as "tenants". Agricultural engineers, who worked in cooperatives, state farms or mechanization stations at the time of Ceausescu often lead these large-scale corporate farms. From the socialist period, they have kept numerous contacts with the active network of their former colleagues who now work in agro-business firms, banks or local administration. Thus, these corporate farms have physical and financial capital (in part inherited from the socialist structures) and benefit from the technical and marketing expertise as well as the social capital of their leaders. These societies do not own land in property, as it has been redistributed by the land reform. Agricultural societies have nevertheless access to their members' land; they are involved in the reverse tenancy configuration insofar as they lease land from outside landowners.
- Small landowners who have benefited from the land reform through restitution or distribution. Mostly living in cities or retired in rural areas, they choose to lease out their land, or part of it, in order to get an income without any involvement in the agricultural process. They are mainly the owners of parcels previously farmed by state farms (as former members of cooperatives are often now members of agricultural societies). They may be also landowners who were members of agricultural societies

⁵ As far as we know, there is no detailed account of the (unclear) privatisation process of state farms.

⁶ Giordano and Kostova (2002) describe how similar transition reforms also led to the dominance of a reverse tenancy configuration in the Dobrudzha area in Bulgaria.

that collapsed, or individual farmers who could no longer afford the costs of an independent agricultural activity.

2.2. Contractual practices

In the study area, two types of contracts are practiced in the reverse tenancy configuration: fixed-rent contracts and what we call here range contracts. To our knowledge, this type of contract is not described in the literature on agrarian contracts. It makes provision for the payment of a rent included between two fixed quantities of products, such as “between 200 and 500 kg of wheat/ha” (Table 1). The rent paid to the landowners is calculated “on the basis of the production realized”, but without more indications about the modalities of calculation of the rent; we will see the importance of this point in the analysis of contractual choice. The contract terms are identical for all the landowners leasing out to a given agricultural or commercial society – the latter using standard forms of their own. At the time of the study, whereas contracts used by commercial societies were written and registered at the town hall in accordance with the law on land lease n°16/1994, contracts between agricultural societies and non-member landowners remained informal. From 2001 to 2007, the marketed production of “commercial farms”, defined as at least 110 hectares in flat areas or 50 hectares in hilly areas, benefited from state subsidies. Commercial societies had to provide formal evidence regarding the area they farmed, in order to obtain the status of “commercial farms” and be eligible for these subsidies. Agricultural societies did not face the same incentive, as their status of legal association constituted evidence of members’ acreages, which were already large enough to allow the societies to benefit from subsidies⁷.

[Table 1]

The duration of contracts is for five years, with the exception of one society which renews contracts every three years. Rents are always defined in kind with wheat as the reference product (such as “400 kg of wheat per hectare”), whatever the crop cultivated. The definition in kind of the rent has to be related to the high inflation rate (15.3% in 2003, 11.9% in 2004). Wheat is, along with corn, the staple crop produced in Romania, but while corn is mostly used for self-consumption, wheat is traditionally sold on the market and can thus be used as a standard. The rent is paid in kind or cash, the cash equivalent being usually calculated on the basis of the wheat market price at the harvest time.

Share contracts are currently not found in the reverse tenancy configuration, while they are commonly used between small landowners. Share contracts were practiced before the communist period, under two arrangements: (i) the a treia contract: the landowner was in charge of the cash costs, the tenant provided his labour and received a share of 30% of the output; (ii) the in parte contract: the tenant provided his

⁷ Since 2007, the EU agricultural subsidies, paid on an area basis, are implemented in Romania. Any farm (including agricultural societies) has now to provide evidence of the acreage cultivated in order to benefit from CAP area payments.

labour and the two actors were sharing half the expenses and the production. Although they were banned by the decree n°115/1953, these practices have lasted during the communist period in the areas where individual farming has persisted (mountains and hills). Share contracts with 30% and 50% shares of the output are currently observed between small landowners. Today the 30% share of the output in the a treia contract corresponds no longer to the tenant's labour remuneration, but to the land rent paid to the landowner, who does not participate in the production process.

As the emergence of contractual practices involving large-scale farms is very recent, it is of interest to wonder about the conditions of emergence of new contracts, i.e., the conditions of institutional innovation. In the Romanian context, references were lacking to organize the contractual relationships between societies and landowners. The fieldwork highlights the role of the new legal framework not only as a normative framework, but also as a provider of focal points in the establishment of the coordination (Schelling, 1960). Without any experience regarding contract types, the leaders of newly privatized commercial societies initially carried on the practices of the state owned commercial societies during their relatively short life time. The dividends paid to the landowners were in fact fixed rents equal or higher than a given amount of wheat defined as 300 kg of wheat/hectare (law n°46/1992), then as 600 kg of wheat/ha (law on land lease n°16/1994). For example, SC Zlatna was created in 2000 out of state owned commercial society Oasa-Mica. It continues to use the same type of contract that SC Oasa-Mica used, which was offering contracts providing for the payment of 700 kg of wheat/ha to the shareholders. In a similar way, the choice of a five-year duration originates from a provision of the law n°16/1994, since then abrogated.

In 2000, SC Sureanu became the first society to use range contracts, on the basis of a biased interpretation of the law on land lease n°16/1994. That law made provision for a definition of the level of the rent as “a fixed amount of products included between a lower and an upper level of production”, without giving a clear methodology to determine the minimum and maximum rents, and without stating how the precise rent to pay a given year should be established⁸. This provision aimed at inducing actors to choose a fair, ex-ante defined, fixed land rent, but certainly not to define loosely the rent as included within a given range. Nonetheless several agricultural and commercial societies followed the path opened by SC Sureanu and adopted range contracts, when they realized the advantages of this type of contract (cf. infra).

3. Negotiation and enforcement issues in an unbalanced lease market

The analysis of contract negotiation and enforcement shows a clear unevenness in favour of the tenants: they are the ones who stipulate the terms of the contract and who default on these terms.

⁸ The articles dealing with the level of the rent and the duration of the contract were abrogated by the law n°65/1998.

In the municipality of Sebeș, commercial and agricultural societies are the main actors on the demand side of the land lease market – only a few individual farmers lease land and they usually lease in small areas. The fact that several societies are farming in the same village (Table 1) does not mean that they are in competition for land. Indeed, societies are working contiguous parcels by leasing land from landowners owning adjacent plots. Landowners have generally no choice over which society to lease out their parcels, depending on their location. The area under tenancy arrangements worked by a given society shows little variation from one year to another. At an infra-village level, societies are thus in a monopoly position, except, potentially, at the limits of their operational zones or if the entry of a new actor changes the local contractual game. Due to the stabilization of the intervention zone of the societies, this remains exceptional⁹. Landowners have thus to accept the tenant conditions if they want their land to be farmed¹⁰. Societies are in such a position that they can stipulate the terms of the contracts, identical for all the landowners, under the condition they provide them with a minimal “satisfaction” level.

In the literature dealing with contract choice, the models are based, for the most part, on the assumption that the landowner chooses the terms of the contracts. Two broad approaches can be distinguished: those developed in a Principal-Agent framework and transaction costs models (for a recent review, see Dasgupta et al., 1991). The application of the principal-agent framework to the analysis of agrarian contracts takes into account informational asymmetries between the landowner and the tenant (a potential wage worker) when supervision is costly (the moral hazard problem) (Stiglitz, 1974). This model is based on the assumption that the landowner is less risk-averse than the tenant. The choice between fixed-rent, wage or share contracts depends on the trade-off between risk-sharing and incentives, along with the local conditions (the level of supervision costs and of production risk, the agents' relative risk aversion, etc.) As for transaction costs models, they assume risk neutrality and do not restrict the risk of opportunism to the tenant's labour effort. They envisage other moral hazard problems depending on the contract type: soil over-exploitation, cheating regarding the sharing of the product, etc. (Datta et al., 1986; Allen et Lueck, 1992; 2002). Landowner's opportunism is also considered, when he participates in the production process (Eswaran and Kotwal, 1985). The choice between contract types is then explained by the relative weight of agency risks, depending on the situations (types of crops, soils, marketing systems, etc.), with sharecropping resulting from a trade-off between these risks.

While situations in which the traditionally assumed relationship landowner-tenant is reversed have been observed empirically in several contexts (Lastarria-Cornhiel and Melmed-Sanjak, 1999), the issue of

⁹ We will have an example of such a change with the intervention of SC Sureanu in Răhau, which previously had only been farming in Sebes.

¹⁰ This situation, in which large-scale societies, holding a local monopoly position, impose their conditions to landowners, has been observed in other Romanian areas (Rusu, 2001).

contract choice in a reverse tenancy configuration has been only analyzed in a few studies. Bellemare and Barrett (2003) explain the choice of share contracts by a landowner leasing out his land to a relatively richer tenant in Madagascar by a trade-off between the provision of incentives to the tenant and a reduction of the risk of land appropriation linked to fixed-rent contracts in this context. This model remains within the principal-agent framework as it is based on the assumption that the landowner unilaterally chooses the terms of the contract. In the two other studies analysing contract choice in a reverse tenancy situation, the tenant, who is endowed with some non-tradable resources, has some bargaining power and may influence the contract choice. The tenant's point of view is thus taken into account in the hypotheses on the determinants of contractual choice. These studies analyze the choice between fixed-rent contracts, share contracts and cost-sharing contracts in the highlands of Eritrea, where the tenants are typically richer than the landowners (Tikabo, 2003) and in Mexican ejidos, where situations of reverse tenancy were also identified (Colin, 2005). Both studies explain landlords and tenants' preferences for the different types of contracts by financing constraints and risk aversion. Because of the market structure in the contexts studied, the contractual relationships between landowners and tenants set up through their mutual preferences for the same type of contract; i.e., contract choice tends to result from a matching between complementary objectives.

In the situation studied in Romania, the tenant chooses the contract terms and thus moral hazard costs arising from his behaviour are not determinants of the type of contract chosen, fixed-rent or range contract. As landowners do not participate in the production process, the costs resulting from the risk of their opportunistic behaviour cannot explain the tenants' choice either. Nor is financing constraint a determinant of the tenant's contract choice: the rents are always paid after the harvest, whatever the contract type. What then about the risk hypothesis?

Agricultural production in Romania is characterized by a high level of uncertainty. Crop yields are very sensitive to natural conditions for three reasons. First, the level of inputs used has decreased since the beginning of the economic transition: the quantities of fertilizers employed have been reduced by 70% between 1989 and 2002 (Csaki and Kray, 2005), leading not only to yields reduction but also to their greater variability. Second, irrigation and drainage systems built during the communist period were either destroyed in the first years following the Revolution or have deteriorated along with the decade; only 15% of the area previously equipped is now irrigated (Rusu, 2001). In 2000, 2002 and 2003, severe droughts affected the agricultural production in the whole country and led to yield losses of 40 to 80% in the most affected areas (Commission of the European Communities, 2004). Third, the use of insufficient and obsolete equipment does not allow the observance of an optimal farming calendar (Rusu, 2001). Beyond production risks, the leaders of societies have now to bear the risks associated with market conditions (output prices instability, high inflation rate, unfavourable evolution of the relative prices of inputs and

outputs¹¹), the problems encountered with processors (payment delays, production refusals despite contracts when the buyer finds a better price elsewhere), and the unpredictability of subsidies awarded to agricultural producers¹².

Agricultural and commercial societies take these risks into account in their contractual practices. The societies using fixed-rent contracts have included clauses that make provision for a reduction of the rent in case of unfavourable natural conditions. These clauses constitute a risk-sharing device (Cheung, 1969). However, their application requires that the government declares the region concerned as a “natural calamity area”.

Under a range contract, the definition of the effective rent depends on the goodwill of the societies. This contract type is (and that is how the leaders of societies justify their choice) a better risk-sharing mechanism than the fixed-rent contract with calamity clauses, as it allows an adaptation to the annual production variability without any legal conditions. The range contract also permits the societies to share the market risk with landowners. According to the societies' heads, the effective rent level is defined every year at the end of July, after the harvest of wheat and barley¹³, the other crops (soya, corn and sunflower) being harvested only in October. On the basis of the results of wheat and barley production, societies choose (through a rough estimate rather than a formal calculation, according to their managers) the rent to be delivered to the landowners per hectare, while (i) reducing the rent in order to keep a cash reserve for the launching of the following production cycle, and (ii) consulting the other agricultural or commercial societies so that the rents paid to landowners in a same locality do not differ from more than 100 kg of wheat/ha. The relation between societies farming in the same area is thus characterized more by collusion than competition.

Another option regarding risk sharing could have been the choice of share contracts rather than fixed-rent contracts with calamity clauses or range contracts. Sharing the harvest would have allowed spreading the production risk and sharing the net result, after the deduction of production costs, could be used as a device for sharing market risk. As share contracts were already practiced between small landowners, they were not unknown to the managers of societies. However, the major advantage for tenants of the choice of fixed-rent contracts with calamity clauses and of range contracts, compared to share contracts, lies in the

¹¹ Between 1990 and 1999, inputs prices have increased about three times more than agricultural products prices (Gavrilescu and Giurca, 2000).

¹² From 2001 to 2007, subsidies for farms defined as « commercial » were mainly subsidies for the production sold to processors or intermediaries. The agricultural products concerned by these subsidies as well as their level used to vary from one year to another.

¹³ Wheat and barley account for 40% to 60% of the area farmed by societies (SC Zlatna is an exception with wheat and barley representing only 32% of the farmed area).

upper limit on the rent level. Compared to a share contract, a fixed-rent contract with a calamity clause allows a risk sharing with landowners in case of bad harvest, but spares them the payment of higher rents in case of good harvest. In a similar way, choosing a range contract rather than a profit-sharing contract saves the tenant from delivering an amount of wheat larger than the upper limit of the range. This contract also provides for a minimal rent, but whose level (200-250 kg of wheat/ha) seems to be bearable by the tenant even in case of bad harvest¹⁴.

The disadvantage of fixed-rent contracts regarding risk management, compared with range contracts, is somehow questioned, as societies sometimes unilaterally adjust ex-post the level of the fixed rent. Indeed, it happens that societies pay a rent lower than the one provided for in the written contract, while justifying such a reduction by a poor harvest or some unexpected expenses¹⁵. Because of a severe drought in 2003, SC Zlatna and SC Deunata were unable to pay the fixed rent they committed to. The landowners leasing out to these societies respectively received 100 and 200 kg of wheat/ha, instead of 500 kg. The societies resorted to the calamity clause, even if the legal conditions were not fulfilled (the region had not been declared a calamity area). In 2004, SC Zlatna justified the reduction of the rent paid by unforeseen costs: as the society was unable to farm the whole area leased in Răhau, for lack of equipment, it called on SC Abrud to carry out mechanized operations on a part of the acreage. The landowners concerned received then 300 instead of 400 kg of wheat/ha. It also happens that societies that are unable to cultivate all the leased area do not deliver any rent at all to the owners of the unfarmed plots.

The risk of default on fixed rental commitments is not envisaged by the principal-agent literature or by the transaction costs approaches. In their classical work, Otsuka et al. (1992) make in their one-period model the explicit assumption there is no ex-post default on fixed-rent payments or on fixed-wage payments, because of a sufficient penalty on breaches of agreements. On the long run, the loss of reputation in a small agrarian community is viewed as constituting the enforcement device of contractual commitments. Allen and Lueck (1992, 2002) do not deal with the risk of default on fixed rental commitments, as they consider that the rent is paid at the beginning of the production cycle. As far as we know, only Shetty (1988) takes into account the risk of default on fixed rents, when they are delivered after the harvest. Shetty (1988) develops an analysis of contract choice in a situation where the landowner prefers a fixed-rent contract, in order to avoid labour shirking by the tenant, but faces the risk that the tenant may be unable to pay the rent because of output uncertainty and his limited liability. Under these conditions, the

¹⁴ Verdery (2003), in her study of a Transylvanian village close to our study area, describes the case of a large-scale tenant who chose a fixed rent of 300 kg of wheat/ha because he considered that he would be able to deliver this amount of product whatever the production conditions may be.

¹⁵ Similar situations of societies defaulting on the rental payment have been described in other Romanian areas (Duncan and Prosterman, 2000; Rusu, 2001).

landowner selects tenants whose wealth guarantees the payment of the fixed rent for all output realizations. The study relies on the assumption that the landowner chooses the terms of the contract.

This analysis cannot be applied to the Transylvania case, where the tenant chooses the terms of the contract and, potentially, does not respect them. One should note that in the case of range contracts, there is no real enforcement issue regarding the payment of the rent, as there is no explicit rule for the rent calculation that could be broken. We did not observe any case of default on the inferior limit of the range, which can be explained by the low level of this bound.

In the Romanian context, the judicial system does not constitute an enforcement device and landowners do not envisage resorting to it. On the one hand, this recourse is considered as too costly and inefficient. A legal procedure would imply a preliminary assessment whose cost of 4 million of lei is equivalent to the average monthly income of the landowners interviewed in 2004 (4.3 million of lei). The outcome of such a procedure, should it be carried on, is seen all the more uncertain as the Romanian public institutions are perceived as corrupted. On the other hand, the landowners who would envisage such recourse would have to bear the risk that the society, in a monopoly position, does not accept to farm their parcels anymore. It is not surprising then that no case of conflict between a landowner and a society has been taken before the courts, according to the person in charge with the registration of contracts at the town hall of Sebeş (interviewed in 2004).

Informal institutions (as envisaged by Milgrom et al. (1990) or Greif (1993; 2002): coalitions, merchant law), which would potentially overcome the failure of formal institutions regarding contract enforcement, are lacking here. In this situation where societies hold a monopoly position, reputation and exclusion effects cannot come into play. In a similar way, at a bilateral level, a repeated game rationale (Klein and Leffler, 1981; Klein, 1985) or interlinked contracts (Bardhan, 1980) cannot be effective. We do not observe either a collective action of landowners aiming at offsetting the position of strength of the societies. Urban landowners account for a large share of the area under lease contracts and, because of their dispersion, they cannot be mobilized on such an issue. Rural landowners whose income depends the most on the land rent¹⁶ are the oldest and/or the poorest and therefore are not in the best position to initiate a collective action.

All said and done, because of the absence of any rule for the rent calculation in the case of range contracts and because of the possibility of a unilateral default on the fixed-rent payment, there is no real difference between fixed-rent and range contracts in this reverse tenancy configuration. The choice between the two types of contract is merely a formal choice, the level of the rent delivered to landowners being anyway defined ex-post depending on the natural and market conditions.

¹⁶ A rent of 400 kg/ha represents for 2.3 hectares (the average acreage leased out by landowners interviewed in 2004) a level of income equal to 4.1 million lei, that is almost equivalent to the average monthly income (4.3 million lei).

4. The landowners' perspective

As such, the lack of options available to landowners could explain the persistence of land lease transactions despite the extreme incompleteness of range contracts and the risk of default on fixed rents. However, a behavioural perspective enriches the picture. The usual economic analyses of agrarian contracts do not pay much attention to the distance that may exist between "objective" situations and their perception by actors¹⁷. This study illustrates the incidence, on contractual practices, of the actors' perception of their situation (Simon, 1976; 1978), of their "mental models" (North, 1990), of the cognitive processes of categorization or framing of the situations, on the basis of past experience (Hodgson, 2004; Kahneman, 2002; Vanberg, 1993). As put forward by North (1990, p.17): "The motivation of the actors is more complicated (and their preferences less stable) than assumed in received theory. More controversial (and less understood) among the behavioral assumptions, usually, is the implicit one that the actors possess cognitive systems that provide true models of the world about which they make choices or, at the very least, that the actors receive information that leads to convergence of divergent initial models. This is patently wrong (...)."

In the situation studied, it appears that landowners do not always perceive the contract incompleteness or the default on rental payments. Twenty-nine of the forty landowners we interviewed did not know the terms of the contracts they signed with commercial societies. They just did not know what was provided for in the contract (7 landowners) or they thought the contract was of a different type (22 landowners), i.e., that it was a fixed-rent contract whereas it was a range contract (14/22), or that it was a share contract whereas it was a fixed-rent or a range contract (8/22). This ignorance of contract terms can be explained by the fact that rural landowners are not familiar with written documents; only 8 of them asked for and kept a copy of the contract. Above all, most landowners do not draw any distinction between commercial and agricultural societies. For them, their land is farmed by an "association" and they see their relationship with a commercial society as the relationship existing between an agricultural society and its members. Hence, they expect to receive a rent defined after the harvest, on the basis of the results of the year. Stan (2005) also notices such a confusion regarding the associative and leasing forms of land tenure in her study area in Dâmbovița where the term "association" is used to name any large-scale farming.

The potential disconnection between the individual physical plots, their exploitation and the returns obtained contributes to landowners' confusion between the two organizational forms. Because of the high land fragmentation, the leaders of agricultural and commercial societies sometimes come to amicable agreements for the exchange of parcels in order to form contiguous cultivation areas. The owners of the

¹⁷ The principal-agent model is grounded in a substantive conception of rationality, and transaction costs approaches mobilize bounded rationality mainly to explain the incompleteness of the contracts.

exchanged plots remain nonetheless members of, or under contract with, the agricultural/commercial society originally farming these plots, and get the corresponding returns. For example, in Răhau, the physical plots of a landowner leasing out to SC Zlatna may be farmed, after exchange, by the agricultural society SA Sadoveana. However, the landowner is still receiving a rent from SC Zlatna, on the basis of an area equivalent to his physical plots.

The landowners' perception of the value of the contractual commitment, in relation to the amounts of products received every year, illustrates the concept of preferences instability, i.e., preferences that are largely affected by the institutional environment of the actor (Hodgson, 1998). This evaluation is based on "aspiration levels" (Simon, 1979) that landowners revise according to their past experience and the options available to them: "As psychological inquiry had shown, aspiration levels are not static, but tend to rise and fall in consonance with changing experiences. In a benign environment that provides many good alternatives, aspirations rise; in a harsher environment, they fall." (Simon, 1979).

Seventeen of forty landowners stated that they were satisfied with the rent they received the year of the interview. This satisfaction was expressed in comparison with the rents they had received the previous years. Indeed, landowners in Sebeș and Răhau have seen their returns from commercial societies decreasing through the 1990's. At the beginning of the decade, the former state production structures, still heavily subsidized by the Romanian state, were able to deliver high rents to the landowners-shareholders (from 600 kg to 800 kg of wheat/ha). From 1996, when the new liberal government decided to put an end to the support to the state sector, the commercial societies being privatized underwent financial difficulties. The rents paid to landowners have subsequently been lower and lower, falling to 100 kg of wheat/ha some years. Some landowners even received no rent at all when the societies were unable to farm the whole area leased-in. In this context where the land supply largely exceeds the demand, some landowners are satisfied with the mere exploitation of their parcels and their expectations regarding the rent level are limited¹⁸.

The discontented landowners would like to lease out their parcels to another tenant, but they are constrained by the scarcity of tenancy options available. In Răhau, some landowners leasing out their land to SC Zlatna, dissatisfied with the rent they received, grasped the opportunity of the entry of the commercial society SC Sureanu in 2003 to change the tenant. However, SC Sureanu reached its full production capacities in this new area and in 2004, leasing out parcels to this society was not an option anymore. Nor does the agricultural society operating in the village, SA Sadoveana, want to extend the area

¹⁸ Cartwright (2003) underlines the incidence of family co-ownership of land, common in Transylvania, on decision-making. During our fieldwork, the participation of family co-owners in decision-making did not appear as a crucial factor affecting the attitude of local landowners towards the rental returns. However, the data collection system was not explicitly addressing this issue.

cultivated, which is not indeed fully farmed. At last, leasing out to individual farmers remains difficult because of their small number.

It also happens (rarely) that some discontented landowners break the contract in order to farm their parcels themselves. The incidence, for the tenant, of such a breach of contract, depends on the quality and the location of the parcel – the situation becoming problematic when the plot is located in the middle of a contiguous farmed parcel. The resolution of this kind of conflict is usually amicable, with the payment of an additional amount of wheat by the tenant¹⁹. In his study of land relationships in a Transylvanian village, Cartwright (2001) relates how the mayor intervened as a mediator in a similar conflict between landowners and a large-scale society. In the Sebeş area, we do not observe such an intermediation by local officials. The leaders of the agricultural and commercial societies used to work as agricultural engineers in the former cooperatives and state farms in the locality and as such, their authority is still recognized. Nor we observe the intervention of local agents to broker on behalf the tenants, given their direct anchorage in the study area.

Although tenants are free to choose the level of the rent, we observe neither a systematic default on fixed rents, nor the systematic payment of the lower limit provided for in a range contract. Societies do not own land hence they remain dependent on the landowners for their access to land. Their leaders are aware that landowners would not hesitate to break contracts, if a more attractive option arises. Tenants take then into account the landowners' "satisfaction levels" in their definition of the effective rent. These levels, empirically perceptible, are related to the natural conditions of production and to the effective output, and are influenced by the contractual experience of landowners. Up to the point of 200 kg of wheat/ha, the rent seems to be considered as acceptable by landowners when the natural conditions of production are unfavourable (e.g., drought, hail); below 200 kg/ha, the landowners are dissatisfied. This is the reason why the society SC Abrud has chosen 200 kg of wheat/ha as the lower limit of its range contract.

5. Conclusion: the equity issue

The reverse tenancy configuration, that is large-scale farms with capital, equipment and technical abilities leasing the parcels of small landowners, has recently emerged in Romania, in consequence of the transition reforms undertaken in the agricultural sector.

In this configuration, the tenant stipulates the contract terms: fixed-rent or range contracts. The incompleteness of range contracts as well as the latitude the tenants have to implement fixed-rent contracts allows them to manage the important uncertainty characterizing the agricultural activity in Romania. However, the potential for the tenants' opportunism is (almost) unlimited. When formal or informal

¹⁹ It should be emphasized that this kind of opportunism has no role in the choice of fixed-rent versus range contracts.

enforcement devices are lacking, the position of strength of tenants is based on the major imperfection of the land lease market. Because of the privatization policies and agricultural measures implemented during the transition process, the large-scale farms, commercial societies and agricultural societies, have found themselves in a monopoly position, the landowners having no or a few tenancy options. The attitude of landowners regarding the incompleteness of range contracts or the default on fixed-rent payment is not just reflecting the absence of enforcement mechanisms and the scarcity of alternatives; it also reflects their perception of the contractual relationship. Indeed, most landowners do not expect the payment of a rent previously agreed on but the delivery of a certain amount of wheat defined on the basis of the tenants' results. This Romanian case illustrates then the importance of taking into account the cognitive dimension of actors' behaviour in the analysis of contractual practices, which calls for the development of synergies between institutional and behavioural economics in this field.

From a policy perspective, the equity-enhancing role of the land lease market is questionable in this situation, as the negotiation and enforcement conditions of the contract terms are clearly unbalanced in favour of the tenant, that is, the large-scale corporate farms.

The literature in development economics has stressed that direct regulation may not be the most efficient way to improve the tenancy equity outcomes (Deininger and Feder, 2001; Deininger, 2003b). Historically, such rental regulation has been implemented in contexts characterized by the dominance of the typical relationship between large landlords and small tenants. The focus was on the protection of tenants through the limitation of contractual options or the definition of rent ceilings to be charged by landlords. Empirical evidence tends to show that these restrictions are costly to implement and, to a large extent, ineffective (Deininger and Feder, 2001; Deininger, 2003b). Policies leading to the increase of outside options available to tenants (through the development of education and off-farm employment opportunities) are thus considered as more effective in improving tenants' bargaining power. In the Central and Eastern Europe context, where the reverse tenancy configuration is common, Swinnen et al. (2006) note that improving access to information and enforcement of contract terms may be more effective than a regulation of the rental contracts for enhancing the bargaining power of small owners. In the same line, with regard to the Romanian situation, Duncan and Prosterman (2000) recommend the development of free legal services to disseminate information on the functioning of land lease markets, to ensure more transparency in lease transactions and to enforce contracts. Our analysis, by highlighting informational/cognitive and enforcement issues, supports such suggestions. The development of sustainable individual farms, which is the current objective of rural development policy in Romania, could also benefit landowners leasing out on the tenancy market, by breaking the monopolistic position of agricultural and commercial societies and thus improving landowners' bargaining power regarding the negotiation and enforcement of contract terms. Following the accession of the country to the European

Union (EU) in 2007, Romanian farmers started to receive the Common Agricultural Policy (CAP) subsidies under the Single Area Payment Scheme (SAPS). The beneficiaries are the users of the land, owners or tenants, individual farmers as well as agricultural and commercial societies, providing they farm the land or keep it in good agricultural and environmental conditions. The introduction of these direct area payments should also have important implications²⁰ with regard to the equity outcome of the functioning of the land lease market. These implications will need further analysis.

Acknowledgments

The authors wish to thank Eric Crawford, Robert Hunt and Blair Rutherford for their helpful comments on this paper.

References

- Allen, D., Lueck, D., 1992. Contract Choice in Modern Agriculture: Cash Rent versus Cropshare. *Journal of Law and Economics* 35, 397-426.
- Allen, D., Lueck, D., 2002. *The Nature of the Farm, Contracts, Risk, and Organization in Agriculture*. The MIT Press, Cambridge.
- Amblard, L., Colin, J.-Ph., 2006. Dimension organisationnelle et pratiques contractuelles foncières : les sociétés agricoles en Roumanie. *Economie rurale* 293, 55-71.
- Amblard, L., Simon, F., Colin, J.-Ph., 2002. The impact of institutional change on organizational practices in Romanian agriculture: the case of Alba, Transylvania. *East-West Journal of Economics and Business* V, 89-107.
- Bardhan, P., 1980. Interlocking factor markets and agrarian development: a review of issues. *Oxford Economic Paper* 32, 82-98.
- Bellemare, M.F., Barrett, C.B., 2003. *An Asset Risk of Share Tenancy*. Working Paper, Department of Applied Economics and Management, Cornell University, Ithaca, NY.
- Binswanger, H., Rosenzweig, M., 1984. Contractual Arrangements, Employment, and Wages in Rural Labor markets: A Critical Review. In: Binswanger, H. and Rosenzweig, M. (eds.), *Contractual*

²⁰ For theoretical assessments of the potential impact of the CAP subsidies on the functioning of land rental markets in Central and Eastern European countries, see Latruffe and Davidova (2007) about the effect of CAP payments on the negotiation of the rent between landowners and corporate farms and Ciaian and Swinnen (2006, 2007) about the implications of land and credit market imperfections for the income and efficiency outcomes of the CAP payments implementation.

Arrangements, Employment, and Wages in Rural Labor Markets in Asia. Yale University Press, New Heaven, pp. 1-40.

Brooks, K., Meurs, M., 1994. Romanian Land Reform: 1991-1993. *Comparative Economic Studies* 36 (2), 17-32.

Burger, A., 2001. Agricultural development and land concentration in a central European country: a case study of Hungary. *Land Use Policy* 18, 259-268.

Cartwright, A., 2001. Moving Boundaries – Implementing Land Reform in Plăiești. In: Cartwright, A., *The Return of the Peasant: Land Reform in Post-communist Romania*. Ashgate, Aldershot, pp. 162-196.

Cartwright, A., 2003. Private Farming in Romania. What Are the Old People Going to Do with Their Land? In: Hann, C.M. and the "Property Relations" Group (eds.), *The Postsocialist Agrarian Question*. LIT Verlag, Berlin, Hamburg, Münster, pp. 171- 188.

Cheung, S., 1969. Transaction Costs, Risk Aversion, and the Choice of Contractual Arrangements. *The Journal of Law and Economics* 12, 23-43.

Ciaian, P., Swinnen, J., 2006. Land Market Imperfections and Agricultural Policy Impacts in the New EU Member States: A Partial Equilibrium Analysis. *American Journal of Agricultural Economics* 88 (4), 799-815.

Ciaian, P., Swinnen, J., 2007. Credit Market Imperfections and the Distribution of Policy Rents: The Common Agricultural Policy in the New EU Member States. *LICOS Discussion Papers*, Katholieke Universiteit Leuven.

Colin, J.-Ph., 2005. Some Rationales for Sharecropping: Empirical Evidence from Mexico. *Human Organization* 64, 28-39.

Commission of the European Communities, 2004. Regular Report on Romania's progress towards accession, Brussels.

Csaki, C., 2000. Agricultural reforms in Central and Eastern Europe and the former Soviet Union-Status and perspectives. *Agricultural Economics* 22, 37-54.

Csaki, C., Kray, H., 2005. Romanian Food and Agriculture from a European Perspective, ECSSD Environmentally and Socially Sustainable Development Working Paper n°39, The World Bank.

Dasgupta, S., Knight, T., Love, A., 1991. Evolution of Agricultural Land Leasing Models: A Survey of the Literature. *Review of Agricultural Economics* 21, 148-176.

Datta, S.K., O'Hara, D.J., Nugent, J.B., 1986. Choice of Agricultural Tenancy in the Presence of Transaction Costs. *Land Economics* 62, 145-158.

Deininger, K., 1995. Collective Agricultural Production: A Solution for Transition Economies? *World Development* 23, 1317-1334.

- Deininger, K., 2003a. Land Markets in Developing and Transition Economies: Impact of Liberalization and Implications for Future Reform. *American Journal of Agricultural Economics* 85, 1217-1222.
- Deininger, K., 2003b. Land Policies for Growth and Poverty Reduction. World Bank Policy Research Report. World Bank/Oxford University Press.
- Deininger, K., Feder, G., 2001. Land Institutions and Land Markets. In: Gardner, B. and Rauser, G. (eds.), *Handbook of Agricultural Economics 1A: Agricultural Production*. Elsevier Science, North Holland, pp. 288-324.
- De Janvry, A., Gordillo, G., Platteau, J-P., Sadoulet, E. (eds.), 2001. *Access to Land, Rural Poverty, and Public Action*. Oxford University Press, Oxford.
- Dumitru, M., 1999. Renta funciara si dezvoltarea agricola. PhD dissertation, Academia Romana, Institutul National de Cercetari Economice, Bucharest.
- Dumitru, M., 2002. Romania-Country case studies on integrating land issues into the broader development agenda. Report commissioned by the World Bank, Bucharest.
- Duncan, J., Prosterman, R.L., 2000. Land Market Development in Rural Romania. RDI Report on Foreign Aid and Development N°107, Rural Development Institute, Washington.
- Eswaran, M., Kotwal, A., 1985. A Theory of Contractual Structure in Agriculture. *American Economic Review* 75, 352-367.
- Gavrilesco, D., Giurca, D., 2000. *Economie agro-alimentara*. Editura Bioterra, Bucuresti.
- Giordano, C., Kostova, D., 2002. The social production of mistrust. In: Hann, C.M. (ed.), *Postsocialism: ideals, ideologies and practices in Eurasia*. Routledge, London, pp. 74-91.
- Greif, A., 1993. Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalitions. *American Economic Review* 83, 525-548.
- Greif, A., 2002. Institutions and Impersonal Exchange: from Communal to Individual Responsibility. *Journal of Institutional and Theoretical Economics* 158, 168-204.
- Hodgson, G., 1998. The Approach of Institutional Economics. *Journal of Economic Literature* 36, 166-192.
- Hodgson, G., 2004. Reclaiming habit for institutional economics. *Journal of Economic Psychology* 25, 651-660.
- Kahneman, D., 2002. Maps of Bounded Rationality: A Perspective on Intuitive Judgment and Choice. Nobel Prize Lecture, <http://nobelprize.org/economics/laureates/2002/kahneman-lecture.pdf>.
- Klein, B., 1985. Self-enforcing contracts. *Journal of Institutional and Theoretical Economics*, 141, 594-600.
- Klein, B., Leffler, K.B., 1981. The Role of Markets Forces in Assuring Contractual Performance. *Journal of Political Economy*, 89: 615-641.

Lastarria-Cornhiel, S., Melmed-Sanjak, J., 1999. Land tenancy in Asia, Africa and Latin America: a look at the past and a view to the future. Paper prepared for the Food and Agriculture Organization of the United Nations.

Latruffe, L., Davidova, S., 2007. Common Agricultural Policy direct payments and distributional conflicts over rented land within corporate farms in the New Member States. *Land Use Policy* 24, 451-457.

Macours, K., Swinnen, J., 1999. Causes of Output Decline in Economic Transition: The Case of Central and Eastern European Agriculture. *Journal of Comparative Economics* 28 (1), 172-206.

Mathijs, E., Swinnen, J., 1998, The Economics of Agricultural Decollectivization in East Central Europe and the Former Soviet Union. *Economic Development and Cultural Change* 47 (1), 1-26.

Mathijs, E., Swinnen, J., 2001. Production Organization and Efficiency During Transition: An Empirical Analysis of East German Agriculture. *The Review of Economics and Statistics* 83 (1), 100-107.

Milgrom, P.R., North, D.C., Weingast, B.W., 1990. The Role of Institutions in The Revival of Trade: The Law Merchant, Private Judges, and the Champagne Fairs. *Economics and Politics* 2, 1-23.

North, D.C., 1990. *Institutions, Institutional Change, and Economic Performance*. Cambridge University Press, Cambridge.

Otsuka, K., Chuma, H., Hayami, Y., 1992. Land and Labor Contracts in Agrarian Economies: Theories and Facts. *Journal of Economic Literature* XXX, 1965-2018.

Rizov, M., Gavrilescu, D., Gow, H., Mathijs, E., Swinnen, J., 2001. Transition and Enterprise Restructuring: The Development of Individual Farming in Romania. *World Development* 29 (7), 1257-1274.

Rusu, M., 2001. *Land Rental Markets in Romania*. Working Paper, Institute of Agricultural Economic, Bucharest.

Sabates-Wheeler, R., 2001. Adapting to land reform: self-selection, production and the response of subsistence farmers to land restitution in post- socialist Romania. Dissertation for the degree of Doctor of Philosophy, University of Wisconsin-Madison.

Sabates-Wheeler, R., 2002. Farm Strategy, Self-selection and Productivity: Can Small Farming Groups Offer Production Benefits to Farmers in Post-Socialist Romania? *World Development* 30 (10), 1737-1753.

Sadoulet, E., Murgai, R., de Janvry A., 2001, Access to Land via Land Rental Markets. In: de Janvry et al. (eds.), *Access to Land, Rural Poverty and Public Action*. Oxford University Press, Oxford, pp. 196-229.

Sarris, A.H., Gavrilescu, D., 1997. Restructuring of farms and agricultural systems in Romania. In: Swinnen, J., Buckwell, A., Mathijs, E. (eds.), *Agricultural privatization, land reform and farm restructuring in Central and Eastern Europe*. Ashgate Publishers, London, pp. 189-228.

Schelling, T.-C., 1960. *The Strategy of Conflict*. Harvard University Press, Cambridge.

- Sharma, N., Dreze, J., 1996. Sharecropping in a North Indian Village. *Journal of Development Studies* 33, 1-39.
- Shetty, S., 1988. Limited Liability, Wealth Differences and Tenancy Contracts in Agrarian Economies. *Journal of Development Economics* 29, 1-22.
- Simon, H., 1976. From Substantial to Procedural Rationality. In: Latsis, S.J. (ed.), *Method and Appraisal in Economics*. Cambridge University Press, Cambridge, pp. 129-148.
- Simon, H., 1978. Rationality as Process and as Product of Thought. *American Economic Review* 68, 1-16.
- Simon, H., 1979. Rational Decision Making in Business Organizations. *American Economic Review* 69, 493-513.
- Simon, H., 1986. Rationality in Psychology and Economics. *Journal of Business* 59, S209-S224.
- Stan, S., 2005. *L'agriculture roumaine en mutation. La construction sociale du marché*. CNRS Editions, Paris.
- Stiglitz, J., 1974. Incentives and Risk Sharing in Sharecropping. *Review of Economic Studies* 41, 219-255.
- Swinnen, J., Vranken, L., 2007. *Patterns of Land Market Developments in Transition*. LICOS Discussion Papers, Katholieke Universiteit Leuven.
- Swinnen, J., Vranken L., Stanley V., 2006. *Emerging Challenges of Land Rental Markets. A Review of Available Evidence for the Europe and Central Asia Region*. Regional Working Paper Series, The World Bank, Washington, D.C.
- Tikabo, M.O., 2003. *Land Tenure in the Highlands of Eritrea: Economics Theory and Empirical Evidence*. PhD Dissertation, Department of Economics and Social Sciences, Agricultural University of Norway.
- Vanberg, V., 1993. Rational choice, rule-following and institutions, an evolutionary perspective. In: Mäki, U., Gustafson, B., Knudsen, C. (eds.), *Rationality, institutions and economic methodology*. Routledge, London and New York, pp. 171-200.
- Verdery, K., 2003. *The Vanishing Hectare, Property and Value in Post-Socialist Transylvania*. Cornell University Press, Ithaca.
- Vranken, L., Swinnen J., 2006. Land Rental Markets in Transition: Theory and Evidence from Hungary. *World Development* 34 (3), 481-500.

Table 1. Contracts practiced in 2003-2004 in the municipality of Sebeș

	SC ABRUD	SC DEUNATA	SA LUCIAN BLAGA	SA CAPALNA	SC SUGAG	SC ZLATNA	SC SUREANU
Farmed acreage	355 ha	240 ha	100 ha	135 ha	50 ha	380 ha	217 ha
Area	Sebeș				Răhau	Răhau and Sebeș	
Contract type	range	fixed rent	range	range	fixed rent	fixed rent	range
Duration	5 years	5 years	5 years	5 years	5 years	3 years	5 years
Rent (kg wheat/ ha)	200-500	500	200-500	250-450	600	500 Sebeș 400 Răhau	200-500

All names of societies are pseudonyms.